

**Claims**

1-11. (canceled)

12. (currently amended) A method for identifying an agent that inhibits T lymphocyte development, the method comprising:

(a) assaying inositol 1,4,5-trisphosphate 3-kinase B (IP3KB) kinase activity in the presence of a test agent, or assaying the level of IP3KB polypeptide or IP3KB gene expression in a cell in the presence of a test agent;

(b) identifying one or more agents that inhibit IP3KB kinase activity, or that inhibit the level of IP3KB polypeptide or IP3KB gene expression in the cell; and

(c) testing said one or more agents for ability to inhibit CD4+CD8+ T cell development into CD4+ or CD8+ T cells ~~T lymphocyte development at the double positive stage; thereby identifying an agent that inhibits the production of mature T lymphocyte.~~

13. (canceled)

14. (Previously presented) The method of claim 12, wherein said one or more agents identified in step (b) inhibit IP3KB kinase activity.

15. (Previously presented) The method of claim 14, wherein the kinase activity is to catalyze conversion of inositol 1,4,5-trisphosphate (IP3) to inositol 1,3,4,5-tetrakisphosphate (IP4).

16-27. (canceled)

28. (currently amended) The method of claim 12, wherein the IP3KB has [[an]] the amino acid sequence of ~~Accession No. CAB65055, Accession No. CAC40660, Accession No. NP\_002212 or~~ SEQ ID NO: 1.

29. (currently amended) The method of claim 12, wherein the IP3KB is encoded by a polynucleotide having [[a]] the nucleotide sequence of SEQ ID NO: 2, 3, or 4.

30. (Previously presented) The method of claim 12, wherein said one or more agents identified in step (b) inhibit the level of IP3KB polypeptide in the cell.

31. (Previously presented) The method of claim 30, wherein the cell is selected from the group consisting of thymus cell, CD4<sup>+</sup> CD8<sup>+</sup> T cell, CD4<sup>+</sup> T cell, CD8<sup>+</sup> T cell, and NK cell.

32. (Previously presented) The method of claim 30, wherein said one or more agents identified in step (b) inhibit the level of IP3KB gene expression in the cell.

33-38. (Cancelled)

39. (Previously presented) The method of claim 12, wherein step c) comprises testing said one or more agents for ability to inhibit T lymphocyte development *in vivo* or *in vitro*.

40. (Previously presented) The method of claim 39, wherein step c) comprises testing said one or more agents for ability to inhibit T lymphocyte development in a non-human animal harboring IP3KB.

41. (Previously presented) The method of claim 41, wherein said non-human animal is a transgenic mouse.